Attorney Docker 2003/78024 Response Office Action dated : 1.02/2007

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> > JAN 1 8 2008

AMENDMENTS TO THE CLAIMS

Claim 74 is amended to overcome the § 112 rejection. A complete and current listing of the claims follows.

1-51. (Canceled)

- A method for increasing the rise time of air bubbles 52. (Previously presented) emitted from a diffuser in water for the purpose of suppressing noise in a marine seismic survey, said method comprising applying a chemical additive to the diffuser's surface with a brush, said chemical additive having bubble coalescence retardation properties or wetting agent properties or both.
- The method of claim 52, wherein the chemical 53. (Previously presented) additive is chosen from among the following: 2-ethyl-1-hexanol, octanol, Exxal-8, Exxal-9, Exxal-13, and sodium dodecyl sulfate.
- The method of claim 52, wherein the chemical 54. (Previously presented) additive is a poly(oxyalkylene) block copolymer composed of ethylene oxide (EO) and propylene oxide (PO) blocks having any of the following general structures: $(EO)_x(PO)_y(EO)_x$ and $(PO)_y(EO)_x(PO)_y$, where x is in the approximate range 2-128 and y is in the approximate range 16-67.
- The method of claim 54, wherein the chemical 55. (Previously presented) additive is chosen from among the following: Pluronic L81, Pluronic L62, Pluronic L64, and Pluronic 25R2.
- The method of claim 52, wherein the additive is 56. (Previously presented) diluted in a suitable solvent.
- The method of claim 56, wherein the diffuser's (Previously presented) 57. surface is allowed to set after application of the chemical additive for at least five minutes before use.
- The method of claim 52, wherein the diffuser is a (Previously presented) 58. perforated hose made from polymeric or elastomeric material.

- 59. (Previously presented) The method of claim 52, further comprising the step of preconditioning the diffuser by soaking or bubbling it in fresh or salt water before coating it with the chemical additive.
- 60. (Previously presented) The method of claim 52, further comprising the steps of operating the diffuser in water followed by recoating the diffuser with the chemical additive.
- 61. (Previously presented) A method for increasing the rise time of air bubbles emitted from a diffuser in water for the purpose of suppressing noise in a marine seismic survey, said method comprising spraying a chemical additive on to the diffuser's surface, said chemical additive having bubble coalescence retardation properties or wetting agent properties or both.
- 62. (Previously presented) The method of claim 61, wherein the chemical additive is chosen from among the following: 2-ethyl-1-hexanol, octanol, Exxal-8, Exxal-9, Exxal-13, and sodium dodecyl sulfate.
- 63. (Previously presented) The method of claim 61, wherein the chemical additive is a poly(oxyalkylene) block copolymer composed of ethylene oxide (EO) and propylene oxide (PO) blocks having any of the following general structures: $(EO)_x(PO)_y(EO)_x$ and $(PO)_y(EO)_x(PO)_y$, where x is in the approximate range 2-128 and y is in the approximate range 16-67.
- 64. (Previously presented) The method of claim 63, wherein the chemical additive is chosen from among the following: Pluronic L81, Pluronic L62, Pluronic L64, and Pluronic 25R2.
- 65. (Previously presented) The method of claim 61, wherein the additive is diluted in a suitable solvent.
- 66. (Previously presented) The method of claim 65, wherein the diffuser's surface is allowed to set after application of the chemical additive for at least five minutes before use.
- 67. (Previously presented) The method of claim 61, wherein the diffuser is a perforated hose made from polymeric or elastomeric material.

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- The method of claim 61, further comprising the step (Previously presented) 68. of preconditioning the diffuser by soaking or bubbling it in fresh or salt water before coating it with the chemical additive.
- (Previously presented) The method of claim 61, further comprising the steps 69. of operating the diffuser in water followed by recoating the diffuser with the chemical additive.
- A method for increasing the rise time of air bubbles 70. (Previously presented) emitted from a diffuser in water for the purpose of suppressing noise in a marine seismic survey, said method comprising dunking the diffuser in a container the contents of which are a chemical additive having bubble coalescence retardation properties or wetting agent properties or both, said additive being either undiluted or dissolved in alcohol.
- The method of claim 70, wherein the chemical 71. (Previously presented) additive is chosen from among the following: 2-ethyl-1-hexanol, octanol, Exxal-8, Exxal-9, Exxal-13, and sodium dodecyl sulfate.
- The method of claim 70, wherein the chemical (Previously presented) 72. additive is a poly(oxyalkylene) block copolymer composed of ethylene oxide (EO) and propylene oxide (PO) blocks having any of the following general structures: $(EO)_x(PO)_y(EO)_x$ and $(PO)_y(EO)_x(PO)_y$, where x is in the approximate range 2-128 and y is in the approximate range 16-67.
- The method of claim 72, wherein the chemical (Previously presented) additive is chosen from among the following: Pluronic L81, Pluronic L62, Pluronic L64, and Pluronic 25R2.
- The method of claim 70, wherein the additive is (Currently amended) dissolved in alcohol, and the alcohol solvent is ethanol.
- The method of claim 70, wherein the diffuser's 75. (Previously presented) surface is allowed to set after application of the chemical additive for at least five minutes before use.

- 76. (Previously presented) The method of claim 70, wherein the diffuser is a perforated hose made from polymeric or elastomeric material.
- 77. (Previously presented) The method of claim 70, further comprising the step of preconditioning the diffuser by soaking or bubbling it in fresh or salt water before coating it with the chemical additive.
- 78. (Previously presented) The method of claim 70, further comprising the steps of operating the diffuser in water followed by recoating the diffuser with the chemical additive.
- 79. (Previously presented) A method for increasing the rise time of air bubbles emitted from a diffuser in water for the purpose of suppressing noise in a marine seismic survey, said method comprising dunking the diffuser in a container the contents of which are a substantially water-insoluble chemical additive having bubble coalescence retardation properties or wetting agent properties or both, said additive being either undiluted or diluted in a suitable solvent.
- 80. (Previously presented) The method of claim 79, wherein the chemical additive is chosen from among the following: 2-ethyl-1-hexanol, octanol, Exxal-8, Exxal-9, and Exxal-13.
- 81. (Previously presented) The method of claim 79, wherein the chemical additive is a poly(oxyalkylene) block copolymer composed of ethylene oxide (EO) and propylene oxide (PO) blocks having any of the following general structures: $(EO)_x(PO)_y(EO)_x$ and $(PO)_y(EO)_x(PO)_y$, where x is in the approximate range 2-128 and y is in the approximate range 16-67.
- 82. (Previously presented) The method of claim 81, wherein the chemical additive is Pluronic L81.
- 83. (Previously presented) A method for increasing the rise time of air bubbles emitted from a diffuser in water for the purpose of suppressing noise in a marine seismic survey, said method comprising dunking the diffuser in a solution of a chemical additive having bubble coalescence retardation properties or wetting agent properties or both, said solution containing at least 25 wt % of said additive.

- 84. (Previously presented) The method of claim 83, wherein the chemical additive is chosen from among the following: 2-ethyl-1-hexanol, octanol, Exxal-8, Exxal-9, Exxal-13, and sodium dodecyl sulfate.
- 85. (Previously presented) The method of claim 83, wherein the chemical additive is a poly(oxyalkylene) block copolymer composed of ethylene oxide (EO) and propylene oxide (PO) blocks having any of the following general structures: $(EO)_x(PO)_y(EO)_x$ and $(PO)_y(EO)_x(PO)_y$, where x is in the approximate range 2-128 and y is in the approximate range 16-67.
- 86. (Previously presented) The method of claim 85, wherein the chemical additive is chosen from among the following: Pluronic L81, Pluronic L62, Pluronic L64, and Pluronic 25R2.